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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/071,634	02/07/2002	Jerry Shifman	94-25b	2618

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MIAMISBURG, OH 45342

EXAMINER

AFTERGUT, JEFF H

ART UNIT	PAPER NUMBER
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1733

6

DATE MAILED: 04/01/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/071,634

Applicant(s)

SHIFMAN ET AL.

Examiner

Jeff H. Aftergut

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 26 February 2003.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 22-30 and 32-42 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 22-30 and 32-42 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

***Claim Rejections - 35 USC § 103***

1. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

2. Claims 22-25, 30, and 32-42 are rejected under 35 U.S.C. 103(a) as being unpatentable over Feit et al in view of Johnson et al and any one of E.P. 432,911 (newly cited), Coran et al (newly cited), or Novak et al (newly cited) optionally further in view of Dyneon Fluorothermoplastics product information (newly cited) and Viton Fluoroelastomer Technical Information (newly cited).

Feit et al is cited in paper no. 4 and applicant is referred to the same for a complete discussion of the reference. The reference suggested the use of a barrier layer of a fluoropolymer disposed between two rubber layers onto which one would have applied reinforcement and an exterior coating of a chlorinated olefin. The reference suggested, as noted by applicant in the response that the terpolymer employed for the fluoropolymer was in fact a thermoplastic fluoropolymer. The reference failed to teach the blending of the thermoplastic fluoropolymer with an elastomeric fluoropolymer. It should be noted as cited above that the THV 200, THV 300, THV 400 and THV 500 utilized by Feit was in fact Deneon<sup>TM</sup> which was described as a thermoplastic fluoropolymer. Johnson as discussed in paper no 4 suggested that those skilled in the art at the time the invention was made would have blended a thermoplastic fluoropolymer with an elastomeric fluoropolymer in order to provide a composition which was not as brittle as the thermoplastic fluoropolymer alone. The reference suggested the use of the same claimed elastomer for the fluoropolymeric elastomer material to be blended with a thermoplastic fluoropolymer which was described as a terpolymer. As discussed in paper no. 4, the use of such

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a blend in the hose construction would have been obvious to those of ordinary skill in the art at the time the invention was made in order to provide the barrier layer of Feit with a less brittle construction (a hose would have been desirably elastomeric). To further evidence that those skilled in the art at the time the invention was made would have incorporated a blend of a thermoplastic polymer and an elastomeric polymer as a layer in a hose, the references to any one of E.P. 432,911 (newly cited), Coran et al (newly cited), or Novak et al (newly cited) are cited.

The references to each one of E.P. 432,911, Coran et al, or Novak et al suggested that those skilled in the art at the time the invention was made would have known to blend a thermoplastic polymer and an elastomeric polymer and utilized the same in the construction of a hose. More specifically, E.P. '911, the abstract of the disclosure and page 1, lines 10-13, page 1, lines 24-39, suggested that it was known to blend a fluoropolymer elastomer with a non-fluorine containing thermoplastic material and to utilize the same in the construction of a hose. Coran et al suggested that it was known to blend a thermoplastic and an elastomer together to utilize this material as a layer in a hose, see the abstract of the disclosure, column 6, lines 41-43, for example. The reference to Novak et al suggested the mixture of a thermoplastic and an elastomer which included fluorine containing elements as a material for manufacture of a hose, column 1, line 24-column 2, line 26, for example. In Novak et al note that the elastomer employed in the process included elastomeric fluoropolymers like Viton for example (column 7, lines 14-30). Clearly, the art is replete with examples wherein one mixed a thermoplastic polymer with an elastomeric polymer in order to derive a thermoplastic elastomer which was suitable for formation of a layer in a hose. Because one would have been afforded the identified properties as established by Johnson for the barrier layer of Feit et al, it would have been obvious to one of

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ordinary skill in the art at the time the invention was made to employ the material of Johnson in Feit as such blends of thermoplastic and elastomer were known as useful in the manufacture of a hose as suggested by any one of E.P. 432,911, Coran et al, or Novak.

It is believed that the compound described by Feit for the fluoropolymer was a thermoplastic fluoropolymeric compound. To further evidence that such was the case, the reference to Dyneon<sup>TM</sup> fluorothermoplastics clearly evidenced that the THV 200, 300, 400, and 500 (referred to at column 3, lines 50-column 4, line 4 of Feit). Additionally, the reference to Johnson suggested that those skilled in the art would have utilized VITON as the elastomeric fluoropolymer material (examples 1-3). The reference to VITON technical information evidenced that those skilled in the art at the time the invention was made would have understood that the elastomer described by Johnson would have been a fluoropolymeric elastomeric material having the defined properties. It would have been obvious to one of ordinary skill in the art at the time the invention was made to employ the material of Johnson in Feit as such blends of thermoplastic and elastomer were known as useful in the manufacture of a hose as suggested by any one of E.P. 432,911, Coran et al, or Novak wherein the thermoplastic fluoropolymeric material utilized by Feit would have been within the requirements of the type employed in the claims as suggested by Dyneon<sup>TM</sup> fluorothermoplastics and wherein the elastomeric fluoropolymer employed by Johnson was in fact within the requirements for the elastomeric material as evidenced by VITON technical information.

It should be noted that the various layers of the hose were suggested by Feit et al.

3. Claims 25-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over the references as set forth above in paragraph 2 further taken with the applicant's admitted prior art for the same reasons as set forth in paper no. 4, paragraph 3.

***Response to Arguments***

4. Applicant's arguments with respect to claims 22-30 and 32-42 have been considered but are moot in view of the new ground(s) of rejection.

The applicant takes the position that there was no reason to utilize the blend of the thermoplastic fluoropolymer and the elastomeric fluoropolymer in the claimed hose. The applicant is advised that the reference to Johnson did in fact suggest the desirability of using a blend of a thermoplastic and an elastomer for the fluoropolymer material because the thermoplastic alone would have been understood to have been too brittle for example. The references to any one of E.P. 432,911, Coran et al, or Novak et al would have suggested that those skilled in the art of hose construction would have known of the desirability of using a blend of a thermoplastic polymer and an elastomeric polymer. Certainly in Feit to utilize the identified blend of Johnson in the manufacture of the hose of Feit would have been within the purview of the ordinary artisan.

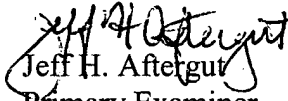
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jeff H. Aftergut whose telephone number is 703-308-2069. The examiner can normally be reached on Monday-Friday 6:30-3:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael W. Ball can be reached on 703-308-2058. The fax phone numbers for the

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organization where this application or proceeding is assigned are 703-872-9310 for regular communications and 703-872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.

  
Jeff H. Aftergut  
Primary Examiner  
Art Unit 1733

JHA  
March 28, 2003